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Executive Secretary

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UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY

Washington, D.C. 20451

OFFICE OF
THE DIRECTOR

April 11, 1985

MEMORANDUM FOR THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE DIRECTOR OF CENTRAL INTELLIGENCE

SUBJECT: Cooperating with Allies in SDI Research

Attached is a paper, as you requested, describing the problems, opportunities and methods of cooperating with our Allies in SDI research. It includes many valuable comments from your staffs; formal clearances were not requested.

If managed properly, we should benefit programmatically and politically through cooperative SDI research arrangements. At the same time, such cooperation increases the risk of sensitive technology leakage, and measures to prevent this will be essential. Our cooperation must also be consistent with the ABM Treaty's stricture against providing ABM components or information sufficient to allow someone to build their own. To obtain expected benefits and avoid tensions over cooperation with our Allies, we will need to be clear at the outset about the ABM Treaty constraints and other necessary restrictions.

Based on these considerations, we should move out now on a four-tiered approach:

1. Review exactly what we want to share with which Allies and under what particular protective measures.

   This work would be done by the SDI-IG (chaired by Richard Perle) in coordination with the Technology Transfer SIG (chaired by Bill Schneider). Program and technology transfer considerations need to be worked closely together. Besides reviewing the major considerations noted above, we should look at cooperation in SDI-related technologies that can have other applications and thus help our goal of strengthening NATO's conventional capabilities.

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2. In conjunction with the above review, define clearly what research can be shared consistent with the ABM Treaty and develop detailed guidelines for internal use and general guidelines for public diplomacy purposes.

3. Develop/negotiate appropriate umbrella agreements with each country where we want cooperative research activities.

These would preferably be government-to-government agreements, although other approaches are possible. They should describe basic areas and rules for cooperation -- including provisions for protecting technology from leaking or being retransferred without US approval.

4. Develop/negotiate appropriate Memoranda of Understanding between DOD and the relevant foreign agencies.

These, not the general agreements, would specify the research activities to be performed (e.g., by laboratories, private companies, etc.) and the detailed protective measures -- along with other necessary provisions.

We should get on promptly with the necessary reviews as we do not want the tail wagging the dog and the matter is already on the agenda with our Allies.

Ken

Kenneth L. Adelman

Attachment:
As stated

cc: Mr. McFarlane
General Vessey
General Abrahamson

COOPERATION WITH OTHER COUNTRIES IN SDI RESEARCH

We have offered the 15 NATO Allies, Australia, Japan, Israel and the Republic of Korea the opportunity to participate in SDI research. We will need to elaborate our offer in the near future, and have a coherent, consistent position on this sharing.

Since SDI involves some sensitive technologies that are on the cutting edge, we need to protect against technology leaking to the Soviet Union. We also need to ensure that the cooperative research complies with the ABM Treaty and to guard against excessive Allied expectations. Within these constraints, however, some significant cooperation could and should go forward.

This paper (1)identifies factors that influence how we elaborate the offer and (2) recommends a general approach to research cooperation along with public diplomacy guidelines.

The Existing Offer

Elaborating on earlier discussions, Secretary Weinberger at the end of March extended an invitation to NATO Defense Ministers for their countries to participate in SDI research. This invitation has also been extended to Japan, Australia, Israel and South Korea. Each country was asked to indicate its interest in participating and in receiving detailed briefings in Washington.

The offer specified that all cooperative research activities will be consistent with the ABM Treaty. Press briefings and guidance regarding this invitation made clear that:

- much of the research will require more than normal measures of protection in whatever cooperative arrangements are worked out;
- such cooperation could include various mechanisms, such as scientific exchanges, specific research requests to individuals or specialized teams, open bidding, and joint laboratory-to-laboratory or company-to-company research; and
- financial contributions from the Allies, though welcome, would not be necessary to enter into a cooperative arrangement.

Benefits from Cooperation

The U.S. may be able to derive both programmatic and political benefits through such cooperation in SDI research.

In terms of programmatic benefits, the Allies could lend to SDI their greater expertise or more advanced technology in certain areas (e.g., the British in electromagnetic guns, the Germans in optic sensors). Moreover, since much of the SDI research involves technology that could also be applicable to new generation battlefield weapons, enhancement of U.S.-Allied conventional capability could likewise result as an increasingly beneficial spin-off for conventional deterrence. This is critical to many Allies who fear that any eventual elimination of nuclear weapons could leave them more vulnerable to yet another massive conventional war in Europe. Significant Allied financial contributions to SDI research could obviously help as well, but these are not very probable at this stage.

The potential political benefits include:

- lessening Allied hostility to the SDI program;
- reducing Allied concern that the strategic defenses, were they to be developed, might not extend to protect their territories;
- giving Allies a stake in evolving a strategy toward more reliance on defense; and
- making the point that since the foundations of SDI research can be applicable to the high-tech thrust of NATO's modernization plans ("smart weapons"), SDI can concurrently help nuclear and conventional deterrence for NATO.

The benefits our Allies hope to obtain include:

- development and acquisition of dual-use technologies, those which may be applicable in other military or industrial areas (several believe that SDI research, like our space program of a previous era, will result in technology breakthroughs and, were they not involved, they would slip even farther behind us);
- a greater chance of influencing our future actions (especially, any SDI deployment decision) through participation in the research, rather than by remaining skeptical sitting on the outside; and

° (despite their current skepticism), increasing their chances of obtaining defenses from us or constructing their own defense capabilities in the event the SDI research pans out.

Risk of Cooperation

Due to real risks of technology leakages to the East, we will need to impose appropriate restraints. These restraints may arouse considerable tensions with our Allies, and they may point to U.S. statements of our intent to transfer the capability eventually to the Soviets. In any case, this tension will complicate and possibly delay the progress of any cooperative program. It must be managed with extreme care.

The risk of technology leakage is, of course, neither new nor unique to SDI. Safeguards have been devised for cooperative projects with Allies in other sensitive areas, but they have not always been successful. Based upon experience, a tier system has evolved in other areas whereby the most sensitive technology is simply not shared, some less sensitive technology is shared with some (more reliable) Allies but not with others, and the least sensitive technology is shared with all Allies. A similar approach would be appropriate here.

The Allies predictably will want more of the sensitive technologies than we will wish to share. The Germans, for example, have indicated interest, but only if "fair partnership, full participation and mutual benefit" can be assured. Careful management and planning at the early stages are necessary

(1) to avoid unrealistic expectations on the part of the Allies which can and will invariably backfire later; and

(2) to reduce difficulties that may arise from sharing more with some Allies than with others.

ABM Treaty Constraints

The ABM Treaty bans transfers of information that would allow the Allies to build their own ABM system or a component of such a system. Components include ABM launchers, ABM interceptor missiles, or ABM radars. Subcomponents are not limited by the Treaty, but there is no clear definition of what constitutes an "ABM component" for future technology, e.g., when a beam weapon is capable of substituting for an ABM interceptor missile. Interagency guidelines should be promptly developed so we are ahead of this potential problem.

Development of defenses against tactical ballistic missiles is not constrained by the ABM Treaty per se. This type of defense may be of greater interest to any Ally who later might seek to develop its own defenses. But since the characteristics of some modern tactical ballistic missiles are similar to those of some strategic ballistic missiles (particularly SLBMs), cooperation in this area requires careful study as to what constitutes permissible tactical defense cooperation and impermissible strategic defense cooperation.

Most of the cooperative research presently envisaged should not raise any concern about exceeding the Treaty limits. An ABM Treaty problem arises at this stage only if Allies decide to participate in SDI research in the expectation of obtaining an ABM component or information needed to build such a component themselves. For this reason, it is important that they understand now the ABM Treaty constraints.

Existing Technology Security and Transfer Framework

Extensive cooperative activities involving sensitive technology are undertaken by U.S. Government agencies with foreign partners, most frequently by DOD in joint research and development as well as in the coproduction of defense articles. Prior cooperative research programs have envisaged some form of joint production or common use at a later stage. Common use would, and joint production of SDI components could, create difficulties under the ABM Treaty. Therefore, Allies should be informed that, should the SDI research program prove successful, common use and joint production may not be possible without changes in the ABM Treaty.

To safeguard classified military technology involved in such cooperative endeavors, "Agreements on the General Security of Military Information" (GSOMIA) have been negotiated as government-to-government agreements. Such agreements are presently in place with all countries thus far invited to participate in SDI research, except Greece, Turkey and Iceland. If sensitive technologies are involved that are not classified military technologies, we have often relied upon the less formal COCOM arrangements or special arrangements worked out for a specific project. Spain, Iceland, Australia, Korea and Israel are not members of COCOM.

In addition to the above government-to-government arrangements, an agency-to-agency memorandum of understanding (MOU) is often concluded that sets forth the details for specific projects. Occasionally, arrangements for specific projects will be set forth in a government-to-government agreement, either because of the importance of that area of cooperation or because of dissatisfaction with the prior performance of

a U.S. or foreign agency. By using government-to-government arrangements, compliance questions become appropriate for government-wide attention, as opposed to a dispute between agencies. Moreover, when cooperation is carried out by foreign companies, government-to-government arrangements help ensure that the foreign governments will assist in enforcing the technology restrictions set forth in contracts with their private companies, rather than just the involved foreign government agency.

With respect to SDI cooperation some believe that there should not be a flat rule that all such cooperation should be predicated upon prior agreement to a government-to-government arrangement. They believe that there should be a case-by-case determination dependent upon existing arrangements, past performance and contemplated future tasks. Others believe it should be required in all cases.

I believe government-to-government arrangements are more appropriate for SDI cooperation:

(1) to emphasize our concern that this technology be protected, and

(2) to provide for a broader dialogue with the involved government than would be likely under agency-to-agency arrangements--most of whom are exceedingly interested in SDI at the very highest level.

This should be the general approach for cooperation to be followed with all countries unless there are genuinely compelling reasons to make an exception--reasons that I presently am unable to foresee.

A considerable body of law and bureaucratic structure governs exports of defense articles, related technical data, and other items of sensitive technology. Pertinent laws include the Arms Export Control Act and the Export Administration Act (presently being implemented under the President's emergency powers). Since SDI research cooperation will likely involve the transfer of defense technical data, if not defense articles, as well as dual-use technology, such transfers would be subject to one of these two acts. If the cooperation takes place between a U.S. company and a foreign entity, a license issued by the Department of State's Office of Munitions Control probably will be required.

Finally, while the SDI Interagency Group (SDI-IG), chaired by the Assistant Secretary of Defense for International Security Policy, is the interagency focus for SDI, technology transfer issues are within the purview of the Senior Interagency Group on the Transfer of Technology (SIG-TT), chaired by the

Under Secretary of State for Security Assistance, Science and Technology. Close working relationships between these two entities will be necessary, due to the extreme complexities and sensitivities involved. To enhance the coordination needed, the Chairman of the SDI-IG, or his designee, should attend relevant meetings of the SIG-TT and the Chairman of the SDI-IG, or his designee, should attend relevant meetings of the SIG-TT.

Suggested Approach

The SDI program is at far too early a stage to set rigid rules for Allied cooperation in research. Maximum flexibility, consistent with our treaty obligations and national security requirements, should be retained as long as possible.

Specific suggestions are set forth below. Responsibility for implementing these suggestions should remain with the SIG-DP as set forth in NSDD 119. However, all questions relating to technology transfer will need to be reviewed by the SIG-TT.

1. Concerned agencies must agree promptly on ABM Treaty guidelines for cooperation with our Allies in SDI research. These guidelines would be used internally to define permitted research areas and, perhaps in a less detailed fashion, could be used similarly with our Allies and with the U.S. public. (Annex I sets forth proposed legal guidelines.)

2. Public affairs and classified guidance on SDI sharing with the Allies should be developed to ensure a uniform U.S. approach. (Annex II is a preliminary unclassified draft).

3. The SDIO should promptly identify areas where foreign invitees excel in some needed area of expertise. With the concurrence of the SIG-TT, areas that would be appropriate for cooperative research would then be promptly identified. In identifying appropriate research areas, an attempt should be made to emphasize those SDI-relevant technologies that also have applications in other areas of Allied interest, e.g., new generation battlefield weapons.

4. A decision should be made whether the technology transfer arrangements for cooperative SDI research will be set forth in government-to-government or agency-to-agency agreements, with clear preference given to the former. Guidelines for cooperative research agreements including provisions for technology transfer controls, should be prepared by the SDI-IG with the concurrence of the SIG-TT and reviewed at the NSC level.

5. The government-to-government agreements should allow for the possibility of SDI research occurring in a variety of ways, e.g., between governmental laboratories, private companies or a combination of both, depending upon the country and the research involved.

6. Each agreement should be country specific and set forth in detail the areas where cooperation is envisaged. This detail should be based upon two critical inputs:

- an inventory prepared by the Allied country and furnished to the SDIO of the relevant types of capabilities or areas of technical expertise which that country has available; and

- the determination by the SDI-IG with the concurrence of the SIG-TT of the research that is appropriate for this individual country to undertake.

7. Agreements with several countries may set forth the same areas for cooperation leaving it for the SDIO to determine which country should in fact undertake a research project in a specific area based on such criteria as competence, cost, timeliness, etc.

8. To the maximum extent possible, foreign companies should be able to compete with domestic companies for contracts if their government has worked out arrangements that allow for cooperation in that area. The SDIO may also need to consider an approach that makes clear in the RFP that identified functions are to be performed by a foreign participant in designated countries--those countries where the arrangements include that area in its scope of cooperation. This would leave it to those competing for the award to identify an appropriate entity in those countries to perform the identified function and to work out the specifics of the cooperation with the approval of the SDIO.

9. The arrangements should make clear that all that is envisaged is cooperation in research; all such cooperation will be consistent with all U.S. obligations including the ABM Treaty; and that any follow-on production or sharing of information must be consistent with U.S. laws, the ABM Treaty and other international obligations and will be the subject of subsequent arrangements.

Annex I. Draft Internal Legal Guidelines for Cooperative Programs

-- Information flowing from SDI research may be shared with the Allies, with one major exception, that is, shared research results cannot include "technical description or blue prints specially worked out for the construction of ABM systems and their components."

-- An ABM system is a system capable of countering strategic ballistic missiles or their elements in flight trajectory, i.e., intercontinental ballistic missiles and sea-launched ballistic missiles.

-- Information that allows Allies to construct an ABM system or the components of an ABM system cannot be shared.

-- "Components of ABM systems" are ABM launchers, ABM interceptor missiles, ABM radars, or items capable of substituting for such ABM components, e.g., a beam weapon in place of an interceptor missile.

-- An item is capable of substituting for an ABM component when it can perform the function of an existing ABM launcher, ABM radar or ABM interceptor missile even though it cannot perform an effective ABM role without other components in a system, e.g., a beam weapon could substitute for an interceptor missile even though it needs guidance (radar) to perform an ABM role.

-- "Components of ABM systems" includes prototypes or breadboard models of ABM launchers, ABM interceptor missiles, and ABM radars.

-- "Components of ABM systems" do not include the subcomponents of ABM launchers, ABM interceptor missiles or ABM radars or items capable of substituting for such components.

-- Sharing of information regarding subcomponents of ABM launchers, ABM interceptor missiles, ABM radars, or items capable of substituting for such components, would be proscribed if information about the subcomponent alone would allow the Allies to construct an ABM component, e.g., sharing of virtually all the subcomponents or sharing of a subcomponent when there is no other significant subcomponent necessary to allow Allies to construct an ABM component.

-- Contracts can be let to companies and organizations in Allied countries for SDI research or for hardware so long as such contracts would not allow the Allies collectively to construct an ABM system or the components of an ABM system.

-- Allies can transfer to the U.S. the ABM information or hardware that they have developed either independently or under SDI contracts.

-- Allies cannot be asked to undertake actions that the United States is forbidden by treaty from doing, e.g., field testing of a space-based ABM system or component.

Annex II. Suggested Talking Points

-- As you know, Secretary Weinberger extended a written invitation to participate in cooperative SDI research to the individual countries within NATO and to Australia, Israel, Japan and the Republic of Korea. Other countries may be invited to participate in the future.

-- All such cooperative research with our Allies will be undertaken in a manner consistent with our existing international obligations, including the ABM Treaty. The ABM Treaty allows us to undertake cooperative research programs on data and technology as may be mutually agreed with the Allied country and we are prepared to do so.

-- It is anticipated that such cooperation will be based on formal bilateral arrangements with each Ally that is interested.

-- A very substantial portion of the SDI research program consists of small, very specific research efforts. While we believe that this research can lead to new and exciting progress in technology, it is important to avoid overexpectations that cooperative research will be a major source of funding for research or provide technology with broad commercial, or wide military, applications.

-- Cooperation could occur in a variety of ways ranging from scientific exchanges, competitive bidding, selective procurement, or joint laboratory-to-laboratory or company-to-company efforts.

-- Financial contributions from the invited countries would be most welcome, but are not a precondition for cooperation.

-- We anticipate that SDI research will range from the unclassified to the most sensitive technologies. No matter what areas we mutually agree to be the subject of cooperative research, we must ensure sensitive technology does not flow to the Soviet Union or other proscribed destinations. Strict protective measures will be required.

-- Some of the cooperative research undertaken in this regard may help NATO in its conventional modernization efforts as well. SDI research could thus help both nuclear and conventional deterrence in the Alliance.